This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a Minor, Municipal permit. The discharge results from the operation of a 0.10 MGD wastewater treatment plant. This permit action consists of updating the proposed effluent limits to reflect the current Virginia WQS and updating permit language, as appropriate, to reflect current boilerplate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9VAC25-260-00 et seq.

1. Facility Name and Mailing Address: Po River Water and Sewer Company STP, 10006 Hammock Bend, Chapel Hill, NC 27517 — SIC Code: 4952 WWTP

   Facility Location: 6437 Morris Road, Spotsylvania, VA 22553 — County: Spotsylvania

   Facility Contact Name: Mr. Matthew Raynor — Telephone Number: (919) 960-5739

2. Permit No.: VA0029769 — Expiration Date of previous permit: October 17, 2010

   Other VPDES Permits associated with this facility: N/A

   Other Permits associated with this facility: N/A

   E2/E3/E4 Status: N/A

3. Owner Name: The Carlyle Group

   Owner Contact/Title: Mr. Matthew Raynor / Environmental Director — Telephone Number: (919) 960-5739

4. Application Complete Date: June 11, 2010

   Permit Drafted By: Susan Mackert — Date Drafted: October 7, 2010

   Draft Permit Reviewed By: Alison Thompson — Date Reviewed: October 13, 2010

   Public Comment Period: Start Date: January 8, 2011 — End Date: February 7, 2011

5. Receiving Waters Information: See Attachment 1 for the Flow Frequency Determination

Receiving Stream Name	Po River	Stream Code:	8-POR
Drainage Area at Outfall:	85.6 square miles	River Mile:	5.5
Stream Basin:	York River	Subbasin:	York
Section:	3	Stream Class:	III
Special Standards:	None	Waterbody ID:	VAN-F16R
7Q10 Low Flow:	0.122 MGD (June – Nov.)	7Q10 High Flow:	4.29 MGD (Dec. – May)
1Q10 Low Flow:	0.086 MGD (June – Nov.)	1Q10 High Flow:	3.04 MGD (Dec. – May)
Harmonic Mean Flow:	3.08 MGD	30Q5 Flow:	0.45 MGD
303(d) Listed:	Receiving Stream - No	30Q10 Flow:	8.59 MGD
303(d) Listed:	Downstream - Yes		
TMDL Approved:	Receiving Stream - No	Date TMDL Approved:	N/A
TMDL Approved:	Downstream - No	Date TMDL Approved:	Due 2018

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

- ✓ State Water Control Law
- ✓ Clean Water Act
- ✓ VPDES Permit Regulation
- ✓ EPA NPDES Regulation
- ___ EPA Guidelines
- ✓ Water Quality Standards
- ___ Other

7. Licensed Operator Requirements: Class III

8. Reliability Class: Class II

9. Permit Characterization:

✓	Private	✓	Effluent Limited		Possible Interstate Effect
	Federal	✓	Water Quality Limited		Compliance Schedule Required
	State		Toxics Monitoring Program Required		Interim Limits in Permit
	POTW		Pretreatment Program Required		Interim Limits in Other Document
	TMDL				

10. Wastewater Sources and Treatment Description:

The Po River Water and Sewer Company STP is a municipal wastewater treatment plant with a current design capacity of 0.10 MGD. The facility treats domestic sewage from a resort community (Indian Acres Campground Facility). The resort community contains approximately 36 lift stations. During the winter months, comfort stations are closed. Although the resort community is seasonal, facility staff estimates that approximately 40 residents live there year-round.

Wastewater enters the facility through a course bar rack, which removes large solids and debris and then flows through a parshall flume which can determine influent flow rates. The wastewater then flows into the primary cell of the aerated stabilization lagoon. There are two floating aerators in both the primary and secondary cells of the lagoon.

The effluent from the lagoon then flows through a single withdrawal point to the chlorine contact chamber. Disinfection is accomplished by pumping sodium hypochlorite solution to the head of the chlorine contact tank. The contact tank is constructed of concrete with steel baffle plates to insure adequate detention time is maintained. The facility has a diffused air post aeration system which is operated by a single blower. De-chlorination is accomplished by two (4 tube) tablet feed de-chlorination units.

Effluent flow is measured using an ultrasonic flow meter and 6 inch parshall flume. The outfall is submerged in the Po River and is located approximately in the middle of the river's width adjacent to the facility.

See Attachment 2 for a facility schematic/diagram.

TABLE 1 – Outfall Description

Outfall Number	Discharge Sources	Treatment	Design Flow	Outfall Latitude and Longitude
001	Domestic Wastewater	See Item 10 above	0.10 MGD	38° 08' 55.3? N 77° 32' 34.4? W
See Attachment 3 for (Spotsylvania Quad, DEQ #170A) topographic map.				

11. Sludge Treatment and Disposal Methods:

Accumulated sediment that collects in the chlorine contact tank is pumped and hauled by Marshall's Septic Tank Cleaning Service of Fredericksburg, Virginia to the Massaponax Sewage Treatment Plant (VA0025658).

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge:

TABLE 2 The facilities and monitoring stations listed below either discharge to or are located within the following waterbody: VAN-F16R	
8-MPN094.94	DEQ monitoring station located upstream of the Route 605 bridge crossing approximately 15.4 rivermiles downstream from Outfall 001
VA0029513	Thornburg Community Sewage Treatment Plant (UT, Po River)
VA0061298	John J. Wright Middle School (UT, Po River)
VAG406173	Saint Matthew Church Residence (UT, Po River)
VAG406416	Tom Nichols Property (UT, Wrights Pond)
VAG406425	Kim Shops (UT, Po River)
VAR050895	Lews Auto Service and Salvage (UT, Po River)
VAR051320	Epperson's Used Auto Parts, Incorporated (UT, Po River)

13. Material Storage:

TABLE 3 - Material Storage		
Materials Description	Volume Stored	Spill/Stormwater Prevention Measures
Sodium Hypochlorite (12.5%)	3 – 55 gallon drums	Stored in locked chemical building
Hydrated Lime (25%)	10 – 50 pound bags	Stored in maintenance shop
Caustic Soda	1 – 55 gallon drum	Stored at each well site
Soda Ash	10 – 50 pound bags	Stored at each well site

14. Site Inspection: Performed by Susan Mackert and Rebecca Johnson on November 8, 2010. The site visit confirms that the application package received on March 29, 2010, is accurate and representative of actual site conditions. The site visit memorandum is found as Attachment 4.

15. Receiving Stream Water Quality and Water Quality Standards:

a) Ambient Water Quality Data

The nearest Department of Environmental Quality ambient monitoring station, 8-MPN094.94, is located on the Mattaponi River in segment VAN-F17R_MPN02A02 approximately 15.4 miles downstream from the outfall location. This segment extends from the confluence with Campbell Creek, downstream until the confluence with the South River. The receiving stream, Po River, is not listed on the current 303(d) list.

The 2008 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) gives an impaired classification for the following downstream locations:

- Recreation Use Impairment

Mattaponi River: Sufficient excursions from the instantaneous *E. coli* bacteria criterion (3 of 25 samples – 12.0%) were recorded at DEQ's ambient water quality monitoring station (8-MPN094.79) at the Route 605 crossing to assess this stream segment as not supporting of the recreation use goal for the 2008 water quality assessment.

- Aquatic Life Use Impairment

Mattaponi River: Sufficient excursions below the lover limit of the pH criterion (4 of 26 samples – 15.4%) were recorded at DEQ's ambient water quality monitoring station (8-MPN094.79) at the Route 605 crossing to assess this stream segment as not supporting of the aquatic life use goal for the 2008 water quality assessment.

The following Total Maximum Daily Load (TMDL) schedule has been established.

- Mattaponi River Recreation Use - 2018
- Mattaponi River Aquatic Life Use – 2018

The complete planning statement is located within the permit reissuance file.

b) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, Po River, is located within Section 3 of the York River Basin, and classified as a Class III water.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 5 details other water quality criteria applicable to the receiving stream.

Ammonia:

The fresh water, aquatic life Water Quality Criteria for Ammonia are dependent on the instream temperature and pH. The 90th percentile temperature and pH values are used because they best represent the critical design conditions of the receiving stream.

With the previous reissuance of this permit staff utilized instream temperature and pH data from 1996 – 1999 to develop ammonia criteria. This data was collected by the permittee from the receiving stream approximately 0.5 miles downstream from Outfall 001 where the effluent and Po River are completely mixed.

Staff evaluated effluent data for pH from 2007 – 2010 and finds no significant differences from the data used to establish ammonia criteria and subsequent effluent limits in the previous permit. Because the facility does not monitor for temperature, a default value of 25°C was compared to the 90th percentile value previously used and was found to not be significantly different.

Therefore, the previously established seasonal (June – November) pH value of 7.4 S.U. and temperature value of 22°C will be carried forward as part of this reissuance process.

The ammonia limitation calculations are shown in Attachment 5.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). Because there is no hardness data for the receiving stream or for the facility, staff guidance suggests using a default hardness value of 50 mg/L $CaCO_3$ for streams east of the Blue Ridge. The hardness-dependent metals criteria in Attachment 5 are based on this in-stream value.

Bacteria Criteria: The Virginia Water Quality Standards (9VAC25-260-170 A.) states that the following criteria shall apply to protect primary recreational uses in surface waters:

1) *E. coli* bacteria per 100 mL of water shall not exceed a monthly geometric mean of the following:

	Geometric Mean[1]
Freshwater *E. coli* (N/100 mL)	126

[1]For a minimum of four weekly samples [taken during any calendar month].

c) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, Po River, is located within Section 3 of the York River Basin. This section has not been designated with any special standards.

d) Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched on September 10, 2010, for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Dwarf Wedgemussel, Upland Sandpiper, Loggerhead Shrike, Bald Eagle, and Migrant Loggerhead Shrike. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

The stream that the facility discharges to is within a reach identified as having an Anadromous Fish Use. It is staff's best professional judgment that the proposed limits are protective of this use.

16. Antidegradation (9VAC25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 as the limits were derived to meet the current water quality standards. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent

concentration values is greater than the chronic wasteload allocation. Effluent limitations are the calculated on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

Effluent data obtained from the permit application and 2007 – 2010 DMR submissions has been reviewed and determined to be suitable for evaluation.

The following pollutants require a wasteload allocation analysis*:* Chlorine and Hydrogen Sulfide.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f) (Q_s)] - [(C_s) (f) (Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- f = Decimal fraction of critical flow from mixing evaluation
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; 30Q10 for ammonia criteria; and 30Q5 for non-carcinogen human health criteria)
- C_s = Mean background concentration of parameter in the receiving stream.

The Water Quality Standards contain two distinct mixing zone requirements. The first requirement is general in nature and requires the "use of mixing zone concepts in evaluating permit limits for acute and chronic standards in 9VAC25-260-140.B". The second requirement is specific and establishes special restrictions for regulatory mixing zones "established by the Board".

The Department of Environmental Quality uses a simplified mixing model to estimate the amount of mixing of a discharge with the receiving stream within specified acute and chronic exposure periods. The simplified model contains the following assumptions and approximations:

– The effluent enters the stream from the bank, either via a pipe, channel or ditch.
- The effluent velocity isn't significantly greater (no more than 1 - 2 ft/sec greater) than the stream velocity.
- The receiving stream is much wider than its depth (width at least ten times the depth).
- Diffusive mixing in the longitudinal direction (lengthwise) is insignificant compared with advective transport (flow).
- Complete vertical mixing occurs instantaneously at the discharge point. This is assumed since the stream depth is much smaller than the stream width.
- Lateral mixing (across the width) is a linear function of distance downstream.
- The effluent is neutrally buoyant (e.g. the effluent discharge temperature and salinity are not significantly different from the stream's ambient temperature and salinity).
- Complete mix is determined as the point downstream where the variation in concentration is 20% or less across the width and depth of the stream.
- The velocity of passing and drifting organisms is assumed equal to the stream velocity.

If it is suitably demonstrated that a reasonable potential for lethality or chronic impacts within the physical mixing area doesn't exist, then the basic complete mix equation, with 100% of the applicable stream flow, is appropriate. If the mixing analysis determines there is a potential for lethality or chronic impacts within the physical mixing area, then the proportion of stream flow that has mixed with the effluent over the allowed

exposure time is used in the basic complete mix equation. As such, the wasteload allocation equation is modified to account for the decimal fraction of critical flow (f).

Staff derived wasteload allocations where parameters are reasonably expected to be present in an effluent (e.g., total residual chlorine where chlorine is used as a means of disinfection) and where effluent data indicate the pollutant is present in the discharge above quantifiable levels. With regard to the Outfall 001 discharge, ammonia as N is likely present since this is a WWTP treating sewage and total residual chlorine may be present since chlorine is used for disinfection. As such, Attachment 5 details the WLA derivations for these pollutants.

c) Effluent Limitations Toxic Pollutants, Outfall 001 –

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) Ammonia as N:

Staff reevaluated pH and temperature data and has concluded it is not significantly different than what was used to derive the existing ammonia limits. Therefore, the existing monthly average ammonia limit of 6.5 mg/L and the weekly average ammonia limit of 9.5 mg/L shall be carried forward with this reissuance.

The monitoring frequency of once per week (1/W) from June through November shall be carried forward with this reissuance.

2) Total Residual Chlorine:

Chlorine is used for disinfection and is potentially in the discharge. Staff calculated WLAs for TRC using current critical flows. In accordance with current DEQ guidance, staff used a default data point of 0.2 mg/L and the calculated WLAs to derive limits. A monthly average limit of 0.020 mg/L and a weekly average limit of 0.025 mg/L were calculated for this discharge (see Attachment 5).

Antibacksliding provisions do not allow relaxation of limitations. As such, the current monthly average limitation of 0.010 mg/L and the weekly average limitation of 0.012 mg/L shall be carried forward with this reissuance.

d) Effluent Limitations and Monitoring, Outfall 001 – Conventional and Non-Conventional Pollutants

TKN:

No changes to total kjeldahl nitrogen (TKN) monitoring are proposed. The monitoring frequency of once per quarter (1/3M) shall be carried forward with this reissuance.

TKN monthly and weekly average reporting units have been revised from kg/day to lb/day in accordance with current agency practice.

BOD_5/DO:

No changes to dissolved oxygen (D.O.) and biochemical oxygen demand-5 day (BOD_5) limitations are proposed.

Dissolved Oxygen and BOD_5 limitations are based on stream modeling (Attachment 6) and are set to meet the water quality criteria for D.O. in the receiving stream. Staff has reviewed reissuance files from 1995, 2000, and 2005, and has not been able to determine the date of the stream model used in determining the D.O. and BOD_5 limitations. However, since the facility has not requested an increase in flow and plant operations have not changed, it is staff's best professional judgement that it is not necessary to run the Regional Dissolved Oxygen Model to determine if revised limitations for BOD_5 and dissolved oxygen are warranted.

The existing monthly average BOD_5 limit of 24 mg/L and the weekly average BOD_5 limit of 36 mg/L shall be carried forward with this reissuance. The previous weekly average mass loading of 13.6 kg/day will be rounded to 14 kg/day in accordance with current agency guidance on reporting concentration limits to two significant figures. The monitoring frequency of once per week (1/W) shall be carried forward with this reissuance.

The existing minimum D.O. limit of 5.0 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per day (1/D) shall be carried forward with this reissuance.

TSS:

No changes to total suspended solids (TSS) limitations are proposed. Total suspended solids limitations are based on current staff guidance which states alternative effluent limits are not applicable to aerated lagoon discharges and that the limitations should be based on the Secondary Effluent Guidelines found in 40 CFR Part 133.102. Since plant operations have not changed, it is staff's best professional judgement that the existing monthly average TSS limit of 30 mg/L and the weekly average TSS limit of 45 mg/L be carried forward with this reissuance. The previous monthly average mass loading of 11.3 kg/day will be rounded to 11 kg/day in accordance with current agency guidance on reporting concentration limits to two significant figures.

The monitoring frequency of once every week (1/W) shall be carried forward with this reissuance.

pH:

No changes to pH limitations are proposed. pH limitations are set at the water quality criteria. As such, a minimum pH limit of 6.0 S.U. and a maximum pH limit of 9.0 S.U. shall be carried forward with this reissuance. The monitoring frequency of once per day (1/D) shall be carried forward with this reissuance.

E. coli:

No changes to *E. coli* limitations are proposed. *E. coli* limitations are in accordance with the Water Quality Standards 9VAC25-260-170. As such, a geometric mean limitation of 126n/100 mLs shall be carried forward with this reissuance. The monitoring frequency of once per quarter (1/3M) shall be increased to 1/W to comply with the current Water Quality Standards.

Nitrate+Nitrite/Total Nitrogen/Total Phosphorus:

The discharge is not subject to the requirements of 9VAC25-820 General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia as no expansion is proposed.

However, significant portions of the Chesapeake Bay and its tributaries are listed as impaired with nutrient enrichment cited as one of the primary causes. Virginia has committed to protecting and restoring the Bay and its tributaries. As such, no changes to Nitrate+Nitrite and Total Phosphorus monitoring are proposed. The monitoring frequency of once per quarter (1/3M) shall be carried forward with this reissuance.

No changes to Total Nitrogen reporting are proposed. The reporting frequency of once per quarter (1/3M) shall be carried forward with this reissuance.

Hydrogen Sulfide:

During the previous reissuance of the permit, data analysis indicated the need for an average monthly hydrogen sulfide limit of 2.9 µg/L. This limit was derived based on one datum point and it was staff's best professional judgement to implement a hydrogen sulfide monitoring program in lieu of a limit. The monitoring program was instituted to compile additional data to assist in a later determination of whether a hydrogen sulfide limit was warranted. Based on DMR monitoring data submitted from 2005 – 2010, a limit for hydrogen sulfide is not warranted (see Attachment 5). It is staff's best professional judgement that hydrogen sulfide monitoring be removed with this permit reissuance.

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table. Limits were established for Flow, BOD_5, Total Suspended Solids, Ammonia, pH, Dissolved Oxygen, Total Residual Chlorine, and *E. coli*.

The limit for Total Suspended Solids is based on Best Professional Judgement.

The mass loading (kg/d) for monthly and weekly averages were calculated by multiplying the concentration values (mg/l), with the flow values (in MGD) and a conversion factor of 3.785.

The mass loading (lb/d) for TKN monthly and weekly averages were calculated by multiplying the concentration values (mg/l), with the flow values (in MGD) and a conversion factor of 8.3438.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

The VPDES Permit Regulation at 9VAC25-31-30 and 40 CFR Part 133 require that the facility achieve at least 85% removal for BOD and TSS (or 65% for equivalent to secondary). This permit requires influent BOD and TSS monitoring on an annual basis to demonstrate 85% removal.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001

Design flow is 0.10 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	Continuous	TIRE
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/D	Grab
Influent BOD_5 [a.]	6	NL	NA	NA	NL	1/YR*	4H-C
BOD_5	2,4	24 mg/L 9.1 kg/day	36 mg/L 14 kg/day	NA	NA	1/W	4H-C
Influent Total Suspended Solids (TSS) [a.]	6	NL	NA	NA	NL	1/YR*	4H-C
Total Suspended Solids (TSS)	1,7	30 mg/L 11 kg/day	45 mg/L 17 kg/day	NA	NA	1/W	4H-C
DO	2,4	NA	NA	5.0 mg/L	NA	1/D	Grab
Total Kjeldahl Nitrogen (TKN)	1	NL mg/L NL lb/day	NL mg/L NL lb/day	NA	NA	1/3M**	4H-C
Ammonia, as N (mg/L) June – November	1,2	6.5 mg/L	9.5 mg/L	NA	NA	1/W	4H-C
E. coli (Geometric Mean) [b.]	2	126 n/100mls	NA	NA	NA	1/W	Grab
Total Residual Chlorine (after contact tank)	1, 2, 3	NA	NA	1.0 mg/L	NA	3/D at 4-hr Intervals	Grab
Total Residual Chlorine (after dechlorination)	2	0.010 mg/L	0.012 mg/L	NA	NA	3/D at 4-hr Intervals	Grab
Nitrate+Nitrite, as N	2, 5	NL mg/L	NL mg/L	NA	NA	1/3M**	4H-C
Total Nitrogen [c.]	2, 5	NL mg/L	NL mg/L	NA	NA	1/3M**	Calculated
Total Phosphorus	2, 5	NL mg/L	NL mg/L	NA	NA	1/3M**	4H-C

The basis for the limitations codes are:

1. Best Professional Judgement
2. Water Quality Standards
3. DEQ Disinfection Guidance
4. Stream Model- Attachment 6
5. 9VAC25-40 (Nutrient Regulation)
6. 9VAC25-31-30
7. 40 CFR Part 133.102

MGD = Million gallons per day.
N/A = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
TIRE = Totalizing, indicating and recording equipment.

1/D = Once every day.
3/D = Three times per day at 4 hour intervals
1/W = One day per week between 10am and 4pm.
1/3M = Once every three months.
1/YR = Once every twelve months.

4H-C = A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored four-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of four (4) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum four (4) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by =10% or more during the monitored discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

a. At least 85% removal for BOD and TSS shall be attained for this effluent.

b. *E. coli* samples shall be collected once every week between 10am and 4pm.

c. Total Nitrogen = Sum of TKN plus Nitrate+Nitrite

* The annual monitoring period shall be January 1 – December 31. The monitoring data shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

** The quarterly monitoring periods shall be January 1 - March 31, April 1 - June 30, July 1 - September 30 and October 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

19b. Effluent Limitations/Monitoring Requirements: Groundwater Monitoring (MW-1, MW-2, and MW-3)

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date, groundwater shall be limited and monitored by the permittee as specified below.

PARAMETER	GROUNDWATER MONITORING		MONITORING REQUIREMENTS	
	Limitations	Units	Frequency*	Sample Type
Static Water Level (mean sea level)	NL	Feet	Annually	Measurement
pH (S.U.)	NL	Standard Units	Annually	Grab
Conductivity (µmhos/cm)	NL	µmhos/cm	Annually	Grab
Ammonia, as N (mg/L)	NL	mg/L	Annually	Grab
Nitrate, as N (mg/L)	NL	mg/L	Annually	Grab
Chlorides (mg/L)	NL	mg/L	Annually	Grab
Total Dissolved Solids (mg/L)	NL	mg/L	Annually	Grab
Total Organic Carbon (mg/L)	NL	mg/L	Annually	Grab
Fecal Coliform (# colonies/100mL)	NL	# colonies/100mL	Annually	Grab

NL = No Limit: monitor and report.
Grab = An individual sample collected over a period of time not to exceed 15-minutes or time needed to collect proper sample amount.

*The annual monitoring period shall be January 1 – December 31. The monitoring data shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

20. Groundwater Monitoring:

With the previous reissuance of the permit, the facility was required to install groundwater monitoring wells within six months of the effective date of the permit and within nine months of the effective date of the permit commence groundwater monitoring on a quarterly basis for two years. Within thirty days of completion of the groundwater monitoring the facility was to submit a final report for review by DEQ.

The final report was received by DEQ on August 18, 2008, and was subsequently reviewed by DEQ remediation staff on September 18, 2008 (see Attachment 7). Staff review indicates that the reported groundwater concentrations do not appear to show any indication that the wastewater facility is impacting the shallow groundwater.

With this reissuance of the permit, Po River representatives have requested that groundwater monitoring requirements be removed from the permit. It is staff's best professional judgement that groundwater monitoring continue at a frequency of once per year (1/YR) for the next permit cycle to ensure lagoon integrity.

21. Other Permit Requirements:

a) Part I.B. of the permit contains additional chlorine monitoring requirements, quantification levels and compliance reporting instructions.

These additional chlorine requirements are necessary per the Sewage Collection and Treatment Regulations at 9VAC25-70 and by the Water Quality Standards at 9VAC25-260-170. A minimum chlorine residual must be maintained at the exit of the chlorine contact tank to assure adequate disinfection. No more that 10% of the monthly test results for TRC at the exit of the chlorine contact tank shall be <1.0 mg/L with any TRC <0.6 mg/L considered a system failure. Monitoring at numerous STPs has concluded that a TRC residual of 1.0 mg/L is an adequate indicator of compliance with the *E. coli* criteria. *E. coli* limits are defined in this section as well as monitoring requirements to take effect should an alternate means of disinfection be used.

9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section

as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

22. Other Special Conditions :

a) 95% Capacity Reopener. The VPDES Permit Regulation at 9VAC25-31-200.B.4. requires all POTWs and PVOTWs develop and submit a plan of action to DEQ when the monthly average influent flow to their sewage treatment plant reaches 95% or more of the design capacity authorized in the permit for each month of any three consecutive month period. The facility is a PVOTW.

b) Indirect Dischargers. Required by VPDES Permit Regulation, 9VAC25-31-200 B.1. and B.2. for POTWs and PVOTWs that receive waste from someone other than the owner of the treatment works.

c) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. The permittee shall submit for approval a revised Operations and Maintenance (O&M) Manual or a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) by March 31, 2011. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

d) CTC, CTO Requirement. The Code of Virginia § 62.1-44.19; Sewage Collection and Treatment Regulations, 9VAC25-790 requires that all treatment works treating wastewater obtain a Certificate to Construct prior to commencing construction and to obtain a Certificate to Operate prior to commencing operation of the treatment works.

f) Licensed Operator Requirement. The Code of Virginia at §54.1-2300 et seq. and the VPDES Permit Regulation at 9VAC25-31-200 C, and Rules and Regulations for Waterworks and Wastewater Works Operators (18VAC160-20-10 et seq.) requires licensure of operators. This facility requires a Class III operator.

g) Reliability Class. The Sewage Collection and Treatment Regulations at 9VAC25-790 require sewage treatment works to achieve a certain level of reliability in order to protect water quality and public health consequences in the event of component or system failure. Reliability means a measure of the ability of the treatment works to perform its designated function without failure or interruption of service. The facility is required to meet a reliability Class of II.

h) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.

i) Ground Water Monitoring Plan. The permittee shall continue sampling and reporting ground water monitoring in accordance with Part I.A. of the permit and the approved groundwater monitoring plan. The purpose of this plan is to determine if lagoon integrity is being maintained and to indicate if activities at the site are resulting in violations of the Board's Ground Water Standards. The permittee shall review the existing Groundwater Monitoring Plan and notify the DEQ Northern Regional Office, in writing, whether it is still accurate and complete by March 31, 2011. If the Groundwater Monitoring Plan is no longer accurate and complete, a revised Groundwater Monitoring Plan shall be submitted for approval to the DEQ Northern Regional Office by March 31, 2011. The approved plan is an enforceable part of the permit. Any future changes to the plan must be submitted for approval to the DEQ Northern Regional Office.

If monitoring results indicate that the lagoon has contaminated the ground water, the permittee shall submit a corrective action plan within 60 days of being notified by the regional office. The plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated or that the contaminant plume is contained on the permittee's property. In addition, based on the extent of contamination, a risk analysis may be required. Once approved, this plan and/or analysis shall be incorporated into the permit by reference and become an enforceable part of this permit.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. Changes to the Permit from the Previously Issued Permit:

a) Special Conditions:

1. The Groundwater Monitoring Plan special condition was revised to remove references to installation of monitoring wells and commencement of monitoring. The condition was further revised to reflect continued annual groundwater monitoring.

b) Monitoring and Effluent Limitations:

1. TKN monthly and weekly average mass loading units have been revised from kg/day to lb/day in accordance with current agency practice.
2. The previous BOD_5 weekly average mass loading of 13.6 kg/day will be rounded to 14 kg/day in accordance with current agency guidance on reporting concentration limits to two significant figures.
3. The previous TSS monthly average mass loading of 11.3 kg/day will be rounded to 11 kg/day in accordance with current agency guidance on reporting concentration limits to two significant figures.
4. Sampling frequency for *E. coli* has been increased from 1/3M to 1/W to comply with the current Water Quality Standards.
5. Hydrogen sulfide monitoring has been removed with this reissuance as monitoring data indicates a limit is not warranted.
6. Per the VPDES Permit Regulation at 9VAC25-31-30 and 40 CFR Part 133, influent BOD and TSS monitoring on an annual basis was added to the permit to demonstrate 85% removal.
7. Sampling frequency for TRC has been increased from once per day to three times per day and four hour intervals in accordance with the current water permit manual.

24. Variances/Alternate Limits or Conditions: N/A

25. Public Notice Information:

First Public Notice Date: January 7, 2011 Second Public Notice Date: January 14, 2011

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, susan.mackert@deq.virginia.gov. See Attachment 8 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):
The receiving stream, Po River, is not listed on the current 303(d) list. The 2008 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) gives an impaired classification for a downstream segment of the Mattaponi River: VAN-F17R_MPN02A02. A recreation use Total Maximum Daily Load (TMDL) is scheduled for 2018 and an aquatic life use TMDL is scheduled for 2018. All upstream facilities will be considered during TMDL development.

TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

27. Additional Comments:
Previous Board Action(s): None

Staff Comments:
1) A pH TMDL to address the aquatic life use impairment may not be required. It is suspected that the low pH at DEQ monitoring station 8-MPN094.79 is due to natural conditions. A study is to be performed in 2011 to determine if this segment of the Mattaponi River can be reclassified as Class VII Swamp Waters. If this portion of the Mattaponi River is reclassified as Class VII Swamp Waters a TMDL study will not be required for the pH impairment.

2) Staff reviewed reissuance files from 1995, 2000, and 2005 and has found discrepancies with Tier 1 versus Tier 2 designations. The model used to determine BOD_5 limitations only protects water quality. A Tier 2 designation would required dissolved oxygen in the receiving stream not be lowered more than 0.2 mg/L from the existing levels. Since the model was previously used and is being carried forward with this reissuance, it is staff's best professional judgement that Tier 1 status is most appropriate.

Public Comment: No comments were received during the public notice.

EPA Checklist: The checklist can be found in Attachment 9

Fact Sheet Attachments – Table of Contents

Po River WWTP
VA0029769

2011 Reissuance

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court Woodbridge, VA 22193

SUBJECT: Flow Frequency Determination
Po River WWTP (VA0029769)

TO: Permit Re-issuance File

FROM: Susan Mackert

DATE: December 1, 2010

This memo supersedes the September 29, 1999, memo from Paul Herman concerning the subject VPDES permit due to the availability of additional monitoring data.

The Po River WWTP discharges to the Po River. Stream flow frequencies are required at this site for use in developing effluent limitations for the VPDES permit.

The USGS has operated a continuous record gage on the Po River near Spotsylvania, Virginia (#01673800) since 1962. The gage is approximately four miles upstream of the discharge point. The flow frequencies for the gage and the discharge point are presented below. The values at the discharge point were determined by drainage area proportions and do not address any withdrawals, discharges or springs lying between the gage and the outfall.

Po River near Spotsylvania, VA (#01673800):

Drainage Area = 77.4 mi^2

1Q10 = 0.12 cfs	High Flow 1Q10 = 4.3 cfs
7Q10 = 0.17 cfs	High Flow 7Q10 = 6.0 cfs
30Q10 = 0.26 cfs	High Flow 30Q10 = 12 cfs
30Q5 = 0.63 cfs	Harmonic Mean = 4.3 cfs

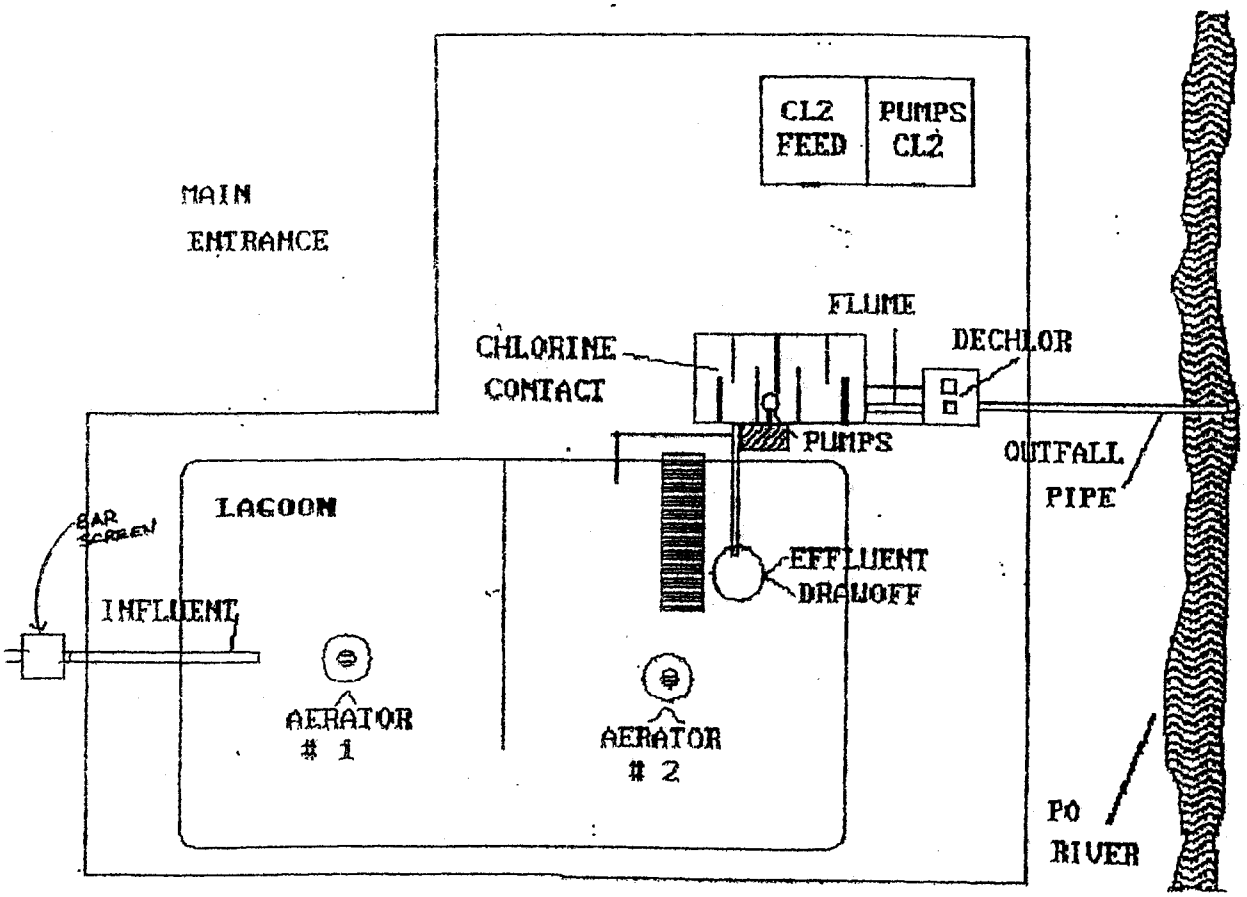
Po River at discharge point:

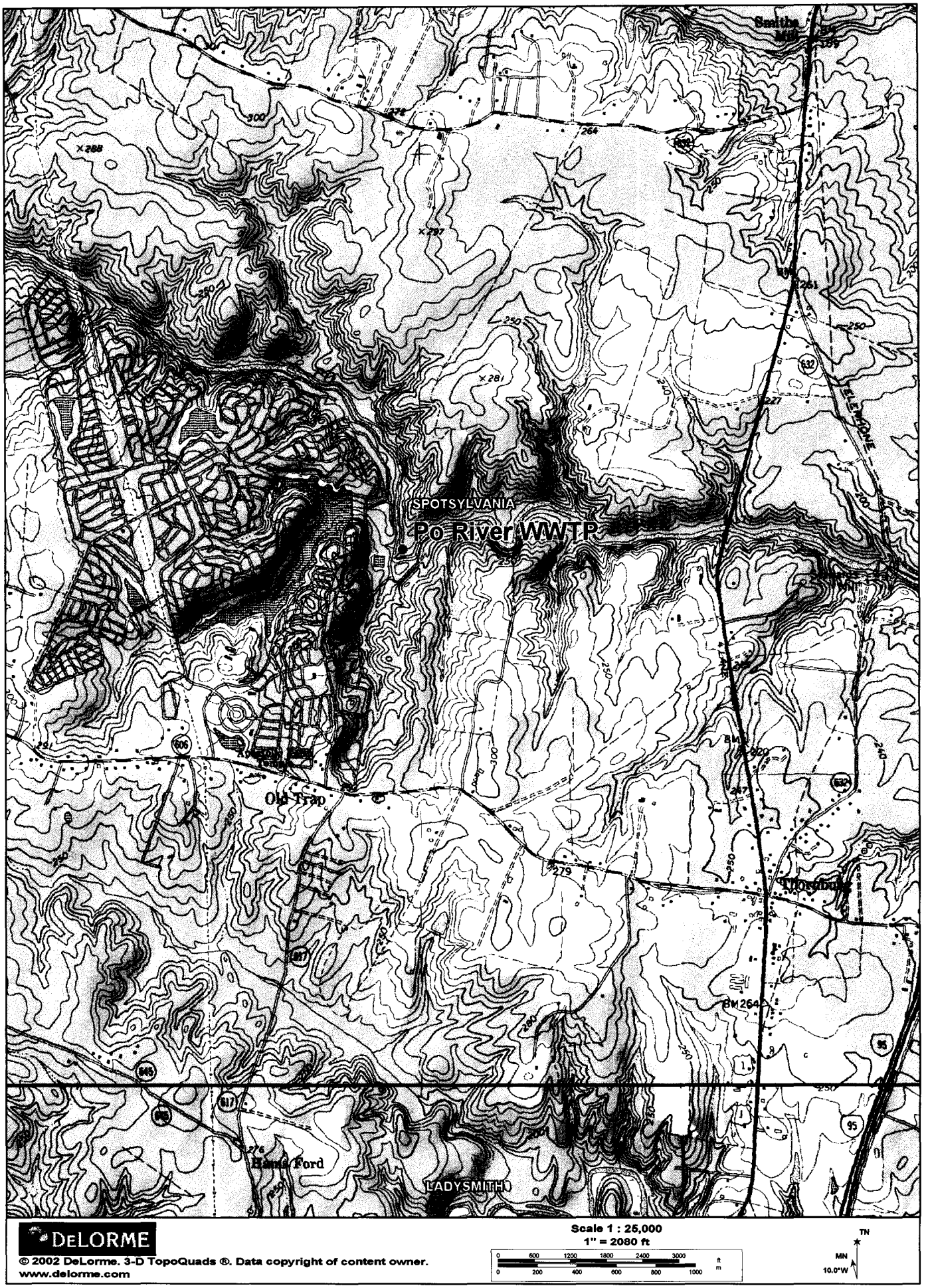
Drainage Area = 85.6 mi^2

1Q10 = 0.133 cfs (0.086 mgd)	High Flow 1Q10 = 4.7 cfs (3.04 mgd)
7Q10 = 0.188 cfs (0.122 mgd)	High Flow 7Q10 = 6.64 cfs (4.29 mgd)
30Q10 = 0.29 cfs (0.187 mgd)	High Flow 30Q10 = 13.3 cfs (8.59 mgd)
30Q5 = 0.697 cfs (0.45 mgd)	Harmonic Mean = 4.76 cfs (3.08 mgd)

The high flow months are December through May.

Indian Acres Sewage Treatment Plant




SPOTSYLVANIA
Po River WWTP
Old Trap
Hamp Ford
LADYSMITH
BM 264
Scale 1 : 25,000
1" = 2080 ft
DeLORME
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www.delorme.com

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court Woodbridge, VA 22193

SUBJECT: Reissuance Site Visit
Po River WWTP (VA0029769)

TO: Permit Reissuance File

FROM: Susan Mackert

DATE: November 12, 2010

A site visit was performed on November 8, 2010, to verify information provided in the facility's permit reapplication package. Information provided in the reapplication package was found to be accurate and representative of actual site conditions.

The Po River Water and Sewer Company STP is a municipal wastewater treatment plant with a current design capacity of 0.10 MGD. The facility treats domestic sewage from a resort community (Indian Acres Campground Facility). The resort community contains approximately 36 lift stations. During the winter months, comfort stations are closed. Although the resort community is seasonal, facility staff estimates that approximately 40 residents live there year-round.

Wastewater enters the facility through a course bar rack, which removes large solids and debris and then flows through a parshall flume which can determine influent flow rates (photo 1). The wastewater then flows into the primary cell of the aerated stabilization lagoon. There are two floating aerators in both the primary and secondary cells (photos 2 – 3) of the lagoon.

The effluent from the lagoon then flows through a single withdrawal point to the chlorine contact chamber (photo 4). Disinfection is accomplished by pumping sodium hypochlorite solution to the head of the chlorine contact tank. The contact tank is constructed of concrete with steel baffle plates to insure adequate detention time is maintained. The facility has a diffused air post aeration system which is operated by a single blower. De-chlorination is accomplished by two – four tube tablet feed de-chlorination units (photo 5). Effluent flow is measured using an ultrasonic flow meter and 6 inch parshall flume (photo 6).

Accumulated sediment that collects in the chlorine contact tank is pumped and hauled by Marshall's Septic Tank Cleaning Service of Fredericksburg, Virginia, to the Massaponax Sewage Treatment Plant (VA0025658).

The outfall is submerged in the Po River and is located approximately in the middle of the river's width adjacent to the facility (photo 7).

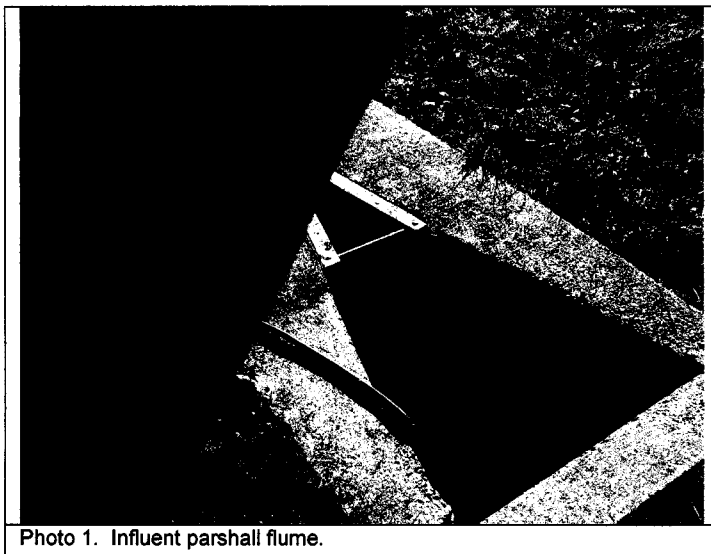

Photo 1. Influent parshall flume.

Photo 2. Primary stabilization lagoon.

Photo 3. Secondary stabilization lagoon.

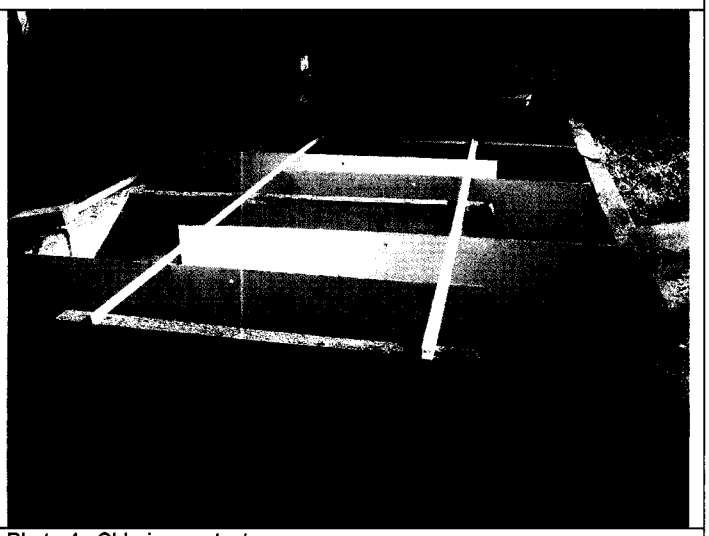

Photo 4. Chlorine contact.

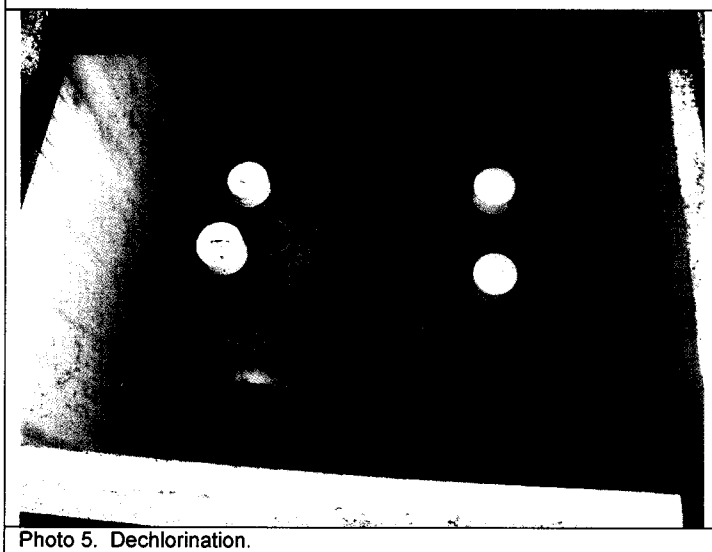

Photo 5. Dechlorination.

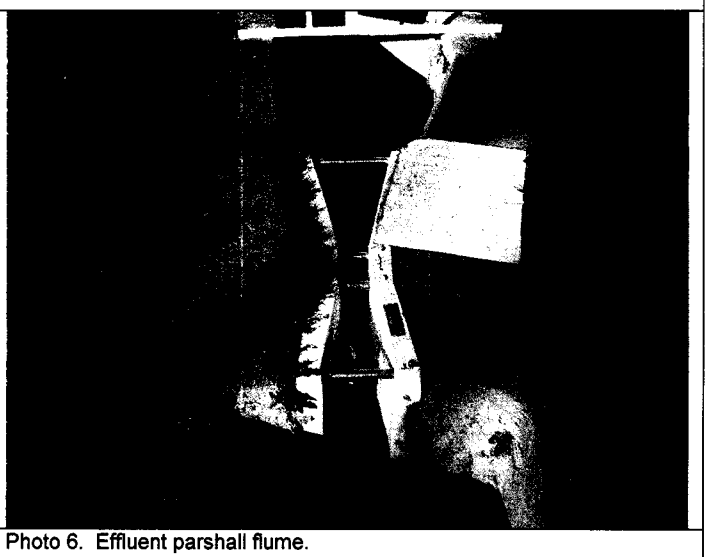

Photo 6. Effluent parshall flume.

Photo 7. Submerged outfall location.

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Po River WWTP Permit No.: VA0029769

Receiving Stream: Po River Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) =		mg/L
90% Temperature (Annual) =		deg C
90% Temperature (Wet season) =		deg C
90% Maximum pH =		SU
10% Maximum pH =		SU
Tier Designation (1 or 2) =	1	
Public Water Supply (PWS) Y/N? =	n	
Trout Present Y/N? =	n	
Early Life Stages Present Y/N? =	y	

Stream Flows

1Q10 (Annual) =	0.122	MGD
7Q10 (Annual) =	0.086	MGD
30Q10 (Annual) =	0.187	MGD
1Q10 (Wet season) =	3.04	MGD
30Q10 (Wet season)	8.59	MGD
30Q5 =	0.45	MGD
Harmonic Mean =	3.08	MGD

Mixing Information

Annual - 1Q10 Mix =	100	%
- 7Q10 Mix =	100	%
- 30Q10 Mix =	100	%
Wet Season - 1Q10 Mix =	100	%
- 30Q10 Mix =	100	%

Effluent Information

Mean Hardness (as CaCO3) =	50	mg/L
90% Temp (Annual) =	22	deg C
90% Temp (Wet season) =		deg C
90% Maximum pH =	7.4	SU
10% Maximum pH =		SU
Discharge Flow =	0.1	MGD

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenapthene	0	--	--	na	9.9E+02	--	--	na	5.4E+03	--	--	--	--	--	--	--	--	--	--	na	5.4E+03
Acrolein	0	--	--	na	9.3E+00	--	--	na	5.1E+01	--	--	--	--	--	--	--	--	--	--	na	5.1E+01
Acrylonitrile[C]	0	--	--	na	2.5E+00	--	--	na	8.0E+01	--	--	--	--	--	--	--	--	--	--	na	8.0E+01
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	6.7E+00	--	na	1.6E-02	--	--	--	--	--	--	--	--	6.7E+00	--	na	1.6E-02
Ammonia-N (mg/l) (Yearly)	0	5.84E+01	7.09E+00	na	--	1.3E+02	2.0E+01	na	--	--	--	--	--	--	--	--	--	1.3E+02	2.0E+01	na	--
Ammonia-N (mg/l) (High Flow)	0	5.84E+01	7.09E+00	na	--	1.8E+03	6.2E+02	na	--	--	--	--	--	--	--	--	--	1.8E+03	6.2E+02	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	2.2E+05	--	--	--	--	--	--	--	--	--	--	na	2.2E+05
Antimony	0	--	--	na	6.4E+02	--	--	na	3.5E+03	--	--	--	--	--	--	--	--	--	--	na	3.5E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	7.5E+02	2.8E+02	na	--	--	--	--	--	--	--	--	--	7.5E+02	2.8E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	1.6E+04	--	--	--	--	--	--	--	--	--	--	na	1.6E+04
Benzidine[C]	0	--	--	na	2.0E-03	--	--	na	6.4E-02	--	--	--	--	--	--	--	--	--	--	na	6.4E-02
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	5.7E+00	--	--	--	--	--	--	--	--	--	--	na	5.7E+00
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	5.7E+00	--	--	--	--	--	--	--	--	--	--	na	5.7E+00
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	5.7E+00	--	--	--	--	--	--	--	--	--	--	na	5.7E+00
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	5.7E+00	--	--	--	--	--	--	--	--	--	--	na	5.7E+00
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	3.6E+05	--	--	--	--	--	--	--	--	--	--	na	3.6E+05
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	7.0E+02	--	--	--	--	--	--	--	--	--	--	na	7.0E+02
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	4.5E+04	--	--	--	--	--	--	--	--	--	--	na	4.5E+04
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
Cadmium	0	8.2E-01	4.0E-01	na	--	1.8E+00	7.5E-01	na	--	--	--	--	--	--	--	--	--	1.8E+00	7.5E-01	na	--
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	5.3E+00	8.0E-03	na	2.6E-01	--	--	--	--	--	--	--	--	5.3E+00	8.0E-03	na	2.6E-01
Chloride	0	8.6E+05	2.3E+05	na	--	1.9E+06	4.3E+05	na	--	--	--	--	--	--	--	--	--	1.9E+06	4.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	4.2E+01	2.0E+01	na	--	--	--	--	--	--	--	--	--	4.2E+01	2.0E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	8.8E+03	--	--	--	--	--	--	--	--	--	--	na	8.8E+03

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	4.1E+03	--	--	--	--	--	--	--	--	--	--	na	4.1E+03
Chloroform	0	--	--	na	1.1E+04	--	--	na	6.1E+04	--	--	--	--	--	--	--	--	--	--	na	6.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	8.8E+03	--	--	--	--	--	--	--	--	--	--	na	8.8E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	8.3E+02	--	--	--	--	--	--	--	--	--	--	na	8.3E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	1.8E-01	7.6E-02	na	--	--	--	--	--	--	--	--	--	1.8E-01	7.6E-02	na	--
Chromium III	0	1.8E+02	2.5E+01	na	--	4.1E+02	4.7E+01	na	--	--	--	--	--	--	--	--	--	4.1E+02	4.7E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	3.6E+01	2.0E+01	na	--	--	--	--	--	--	--	--	--	3.6E+01	2.0E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene [C]	0	--	--	na	1.8E-02	--	--	na	5.7E-01	--	--	--	--	--	--	--	--	--	--	na	5.7E-01
Copper	0	3.6E+00	2.9E+00	na	--	8.1E+00	5.4E+00	na	--	--	--	--	--	--	--	--	--	8.1E+00	5.4E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	4.9E+01	9.7E+00	na	8.8E+04	--	--	--	--	--	--	--	--	4.9E+01	9.7E+00	na	8.8E+04
DDD [C]	0	--	--	na	3.1E-03	--	--	na	9.9E-02	--	--	--	--	--	--	--	--	--	--	na	9.9E-02
DDE [C]	0	--	--	na	2.2E-03	--	--	na	7.0E-02	--	--	--	--	--	--	--	--	--	--	na	7.0E-02
DDT [C]	0	1.1E+00	1.0E-03	na	2.2E-03	2.4E+00	1.9E-03	na	7.0E-02	--	--	--	--	--	--	--	--	2.4E+00	1.9E-03	na	7.0E-02
Demeton	0	--	1.0E-01	na	--	--	1.9E-01	na	--	--	--	--	--	--	--	--	--	--	1.9E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	3.8E-01	3.2E-01	na	--	--	--	--	--	--	--	--	--	3.8E-01	3.2E-01	na	--
Dibenz(a,h)anthracene [C]	0	--	--	na	1.8E-01	--	--	na	5.7E+00	--	--	--	--	--	--	--	--	--	--	na	5.7E+00
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	7.2E+03	--	--	--	--	--	--	--	--	--	--	na	7.2E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.0E+03	--	--	--	--	--	--	--	--	--	--	na	1.0E+03
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	8.9E+00	--	--	--	--	--	--	--	--	--	--	na	8.9E+00
Dichlorobromomethane [C]	0	--	--	na	1.7E+02	--	--	na	5.4E+03	--	--	--	--	--	--	--	--	--	--	na	5.4E+03
1,2-Dichloroethane [C]	0	--	--	na	3.7E+02	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	3.9E+04	--	--	--	--	--	--	--	--	--	--	na	3.9E+04
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	5.5E+04	--	--	--	--	--	--	--	--	--	--	na	5.5E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	4.8E+03	--	--	--	--	--	--	--	--	--	--	na	4.8E+03
1,3-Dichloropropene [C]	0	--	--	na	2.1E+02	--	--	na	6.7E+03	--	--	--	--	--	--	--	--	--	--	na	6.7E+03
Dieldrin [C]	0	2.4E-01	5.6E-02	na	5.4E-04	5.3E-01	1.0E-01	na	1.7E-02	--	--	--	--	--	--	--	--	5.3E-01	1.0E-01	na	1.7E-02
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	2.4E+05	--	--	--	--	--	--	--	--	--	--	na	2.4E+05
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	4.7E+03	--	--	--	--	--	--	--	--	--	--	na	4.7E+03
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	6.1E+06	--	--	--	--	--	--	--	--	--	--	na	6.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	2.5E+04	--	--	--	--	--	--	--	--	--	--	na	2.5E+04
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
2,4-Dinitrotoluene [C]	0	--	--	na	3.4E+01	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	2.8E-07	--	--	--	--	--	--	--	--	--	--	na	2.8E-07
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	6.4E+01	--	--	--	--	--	--	--	--	--	--	na	6.4E+01
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	4.9E-01	1.0E-01	na	4.9E+02	--	--	--	--	--	--	--	--	4.9E-01	1.0E-01	na	4.9E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	4.9E-01	1.0E-01	na	4.9E+02	--	--	--	--	--	--	--	--	4.9E-01	1.0E-01	na	4.9E+02
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	4.9E-01	1.0E-01	--	--	--	--	--	--	--	--	--	--	4.9E-01	1.0E-01	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	4.9E+02	--	--	--	--	--	--	--	--	--	--	na	4.9E+02
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	1.9E-01	6.7E-02	na	3.3E-01	--	--	--	--	--	--	--	--	1.9E-01	6.7E-02	na	3.3E-01
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	1.7E+00	--	--	--	--	--	--	--	--	--	--	na	1.7E+00

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	7.7E+02	--	--	--	--	--	--	--	--	--	--	na	7.7E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.9E-02	na	--	--	--	--	--	--	--	--	--	--	1.9E-02	na	--
Heptachlor [C]	0	5.2E-01	3.8E-03	na	7.9E-04	1.2E+00	7.1E-03	na	2.5E-02	--	--	--	--	--	--	--	--	1.2E+00	7.1E-03	na	2.5E-02
Heptachlor Epoxide[C]	0	5.2E-01	3.8E-03	na	3.9E-04	1.2E+00	7.1E-03	na	1.2E-02	--	--	--	--	--	--	--	--	1.2E+00	7.1E-03	na	1.2E-02
Hexachlorobenzene[C]	0	--	--	na	2.9E-03	--	--	na	9.2E-02	--	--	--	--	--	--	--	--	--	--	na	9.2E-02
Hexachlorobutadiene[C]	0	--	--	na	1.8E+02	--	--	na	5.7E+03	--	--	--	--	--	--	--	--	--	--	na	5.7E+03
Hexachlorocyclohexane Alpha-BHC[C]	0	--	--	na	4.9E-02	--	--	na	1.6E+00	--	--	--	--	--	--	--	--	--	--	na	1.6E+00
Hexachlorocyclohexane Beta-BHC[C]	0	--	--	na	1.7E-01	--	--	na	5.4E+00	--	--	--	--	--	--	--	--	--	--	na	5.4E+00
Hexachlorocyclohexane Gamma-BHC[C] (Lindane)	0	9.5E-01	na	na	1.8E+00	2.1E+00	--	na	5.7E+01	--	--	--	--	--	--	--	--	2.1E+00	--	na	5.7E+01
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	6.1E+03	--	--	--	--	--	--	--	--	--	--	na	6.1E+03
Hexachloroethane[C]	0	--	--	na	3.3E+01	--	--	na	1.0E+03	--	--	--	--	--	--	--	--	--	--	na	1.0E+03
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	3.7E+00	na	--	--	--	--	--	--	--	--	--	--	3.7E+00	na	--
Indeno (1,2,3-cd) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	5.7E+00	--	--	--	--	--	--	--	--	--	--	na	5.7E+00
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone[C]	0	--	--	na	9.6E+03	--	--	na	3.1E+05	--	--	--	--	--	--	--	--	--	--	na	3.1E+05
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	2.0E+01	2.5E+00	na	--	4.5E+01	4.7E+00	na	--	--	--	--	--	--	--	--	--	4.5E+01	4.7E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.9E-01	na	--	--	--	--	--	--	--	--	--	--	1.9E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	3.1E+00	1.4E+00	--	--	--	--	--	--	--	--	--	--	3.1E+00	1.4E+00	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	8.3E+03	--	--	--	--	--	--	--	--	--	--	na	8.3E+03
Methylene Chloride [C]	0	--	--	na	5.9E+03	--	--	na	1.9E+05	--	--	--	--	--	--	--	--	--	--	na	1.9E+05
Methoxychlor	0	--	3.0E-02	na	--	--	5.6E-02	na	--	--	--	--	--	--	--	--	--	--	5.6E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	5.6E+01	6.7E+00	na	4.6E+03	1.3E+02	1.2E+01	na	2.5E+04	--	--	--	--	--	--	--	--	1.3E+02	1.2E+01	na	2.5E+04
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	3.8E+03	--	--	--	--	--	--	--	--	--	--	na	3.8E+03
N-Nitrosodimethylamine[C]	0	--	--	na	3.0E+01	--	--	na	9.5E+02	--	--	--	--	--	--	--	--	--	--	na	9.5E+02
N-Nitrosodiphenylamine[C]	0	--	--	na	6.0E+01	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
N-Nitrosodi-n-propylamine[C]	0	--	--	na	5.1E+00	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Nonylphenol	0	2.8E+01	6.6E+00	--	--	6.2E+01	1.2E+01	na	--	--	--	--	--	--	--	--	--	6.2E+01	1.2E+01	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	1.4E-01	2.4E-02	na	--	--	--	--	--	--	--	--	--	1.4E-01	2.4E-02	na	--
PCB Total[C]	0	--	1.4E-02	na	6.4E-04	--	2.6E-02	na	2.0E-02	--	--	--	--	--	--	--	--	--	2.6E-02	na	2.0E-02
Pentachlorophenol [C]	0	7.7E-03	5.9E-03	na	3.0E+01	1.7E-02	1.1E-02	na	9.5E+02	--	--	--	--	--	--	--	--	1.7E-02	1.1E-02	na	9.5E+02
Phenol	0	--	--	na	8.6E+05	--	--	na	4.7E+06	--	--	--	--	--	--	--	--	--	--	na	4.7E+06
Pyrene	0	--	--	na	4.0E+03	--	--	na	2.2E+04	--	--	--	--	--	--	--	--	--	--	na	2.2E+04
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	4.0E+00	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	4.4E+01	9.3E+00	na	2.3E+04	--	--	--	--	--	--	--	--	**4.4E+01**	**9.3E+00**	**na**	**2.3E+04**
Silver	0	3.2E-01	--	na	--	7.1E-01	--	na	--	--	--	--	--	--	--	--	--	**7.1E-01**	**--**	**na**	**--**
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.3E+03**
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	1.0E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.0E+03**
Thallium	0	--	--	na	4.7E-01	--	--	na	2.6E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.6E+00**
Toluene	0	--	--	na	6.0E+03	--	--	na	3.3E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.3E+04**
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	1.6E+00	3.7E-04	na	8.9E-02	--	--	--	--	--	--	--	--	**1.6E+00**	**3.7E-04**	**na**	**8.9E-02**
Tributyltin	0	4.6E-01	7.2E-02	na	--	1.0E+00	1.3E-01	na	--	--	--	--	--	--	--	--	--	**1.0E+00**	**1.3E-01**	**na**	**--**
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	3.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.9E+02**
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	5.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E+03**
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	9.5E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.5E+03**
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	7.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.6E+02**
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	7.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.6E+02**
Zinc	0	3.6E+01	3.9E+01	na	2.6E+04	8.0E+01	7.2E+01	na	1.4E+05	--	--	--	--	--	--	--	--	**8.0E+01**	**7.2E+01**	**na**	**1.4E+05**

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	3.5E+03
Arsenic	1.7E+02
Barium	na
Cadmium	4.5E-01
Chromium III	2.8E+01
Chromium VI	1.2E+01
Copper	3.2E+00
Iron	na
Lead	2.8E+00
Manganese	na
Mercury	8.6E-01
Nickel	7.4E+00
Selenium	5.6E+00
Silver	2.8E-01
Zinc	3.2E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

12/2/2010 11:26:53 AM

Facility = Po River
Chemical = Chlorine
Chronic averaging period = 30
WLAa = 0.042 mg/l
WLAc = 0.02 mg/l
Q.L. = 0.1 mg/l
# samples/mo. = 28
# samples/wk. = 7

Summary of Statistics:

observations = 1
Expected Value = .2
Variance = .0144
C.V. = 0.6
97th percentile daily values = .486683
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 4.03534018683262E-02
Average Weekly limit = 2.46441133379476E-02
Average Monthly LImit = 2.01199304612592E-02

The data are:

0.2 mg/l

12/2/2010 11:31:54 AM

Facility = Po River
Chemical = Hydrogen Sulfide
Chronic averaging period = 30
WLAa =
WLAc = 3.7
Q.L. = 2.0
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 58
Expected Value = 1.24892
Variance = .561536
C.V. = 0.6
97th percentile daily values = 3.03916
97th percentile 4 day average = 2.07795
97th percentile 30 day average= 1.50627
< Q.L. = 51
Model used = BPJ Assumptions, Type 1 data

No Limit is required for this material

The data are:

0
0
1700
2100
0
0
0
0
0
0
0
0
1100
0
1200
0
0
0
0
0
0
0
0

0
1400
1000
0
0
0
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0
9500
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0

DMR QA/QC

Permit #:VA0029769 Facility:Po River Water and Sewer WWTP

Due	Parameter Description	QTY AVG	Lim Avg	QTY MAX	Lim Max	CONC MIN	Lim Min	CONC AVG	Lim Avg	CONC MAX	Lim Max
10-Dec-2005	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
10-Jan-2006	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
10-Feb-2006	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	1.7	NL	1.7	NL
10-Mar-2006	HYDROGEN SULFIDE	.23	********	.23	********	NULL	**********	2.1	NL	2.1	NL
10-Apr-2006	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
10-May-2006	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
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10-Jul-2006	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
10-Aug-2006	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
10-Sep-2006	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
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10-Dec-2006	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	1.1	NL	1.1	NL
10-Jan-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<.05	NL	<.05	NL

10-Feb-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	1.2	NL	1.2	NL
10-Mar-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Apr-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
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10-Jun-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Jul-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Aug-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	1.0	NL	1.0	NL
10-Sep-2007	HYDROGEN SULFIDE	<QL	********	<QL	********	NULL	**********	<QL	NL	<QL	NL
10-Oct-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Nov-2007	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Dec-2007	HYDROGEN SULFIDE	.04	********	.04	********	NULL	**********	.14	NL	1.4	NL
10-Jan-2008	HYDROGEN SULFIDE	0.05	********	0.05	********	NULL	**********	1.0	NL	1.0	NL
10-Feb-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1	NL	<1	NL
10-Mar-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
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10-May-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Jun-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Jul-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2	NL	<2	NL
10-Aug-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Sep-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Oct-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Nov-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Dec-2008	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Jan-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1.0	NL	<1.0	NL
10-Feb-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Mar-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2	NL	<2	NL
10-Apr-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-May-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Jun-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<2.0	NL	<2.0	NL
10-Jul-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<5	NL	<5	NL
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10-Sep-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<1	NL	<1	NL
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10-Nov-2009	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<QL	NL	<QL	NL
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10-Jan-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<QL	NL	<QL	NL
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10-Mar-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<QL	NL	<QL	NL
10-Apr-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<QL	NL	<QL	NL
10-May-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<QL	NL	<QL	NL
10-Jun-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	<QL	NL	<QL	NL
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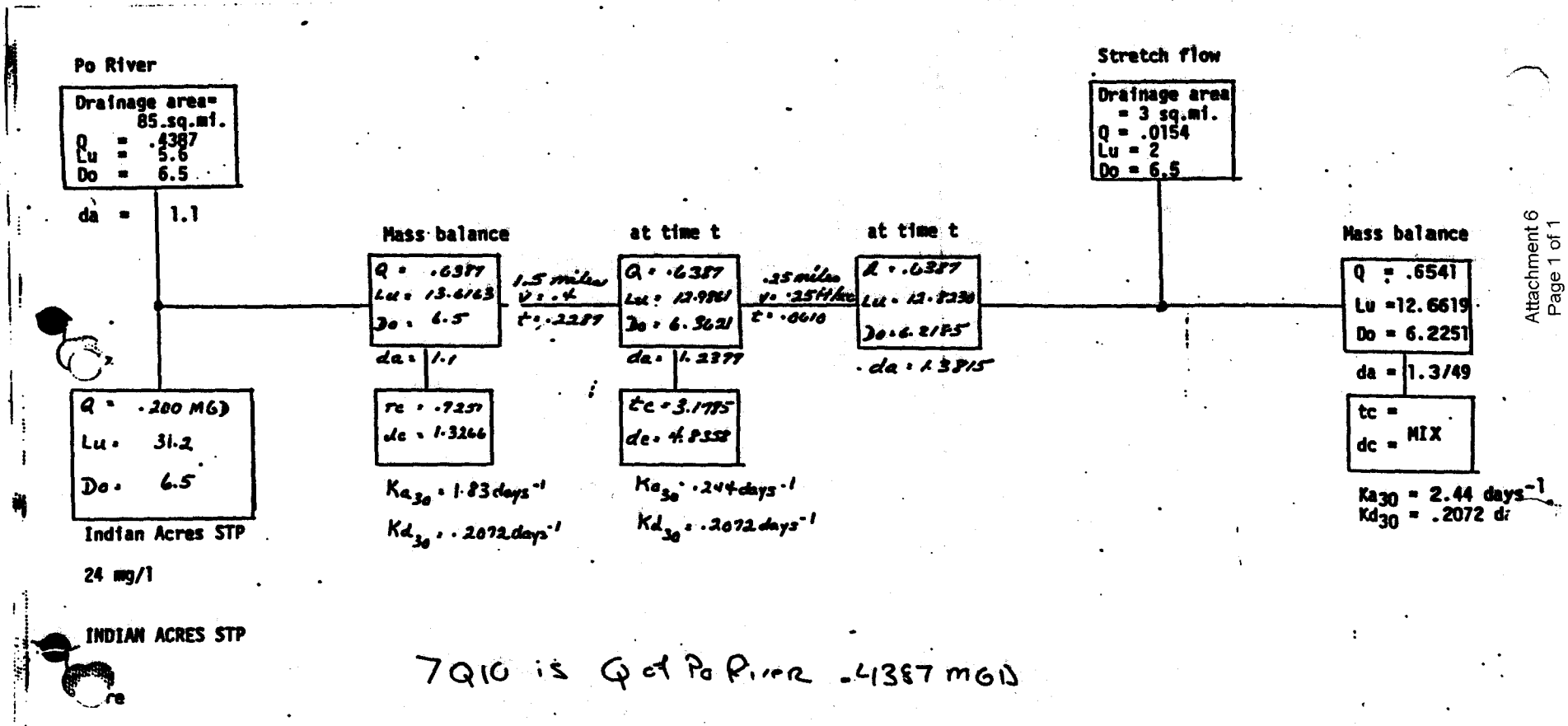
10-Oct-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	NULL	NL	NULL	NL
10-Nov-2010	HYDROGEN SULFIDE	NULL	********	NULL	********	NULL	**********	NULL	NL	NULL	NL



7Q10 is Q of Po River .4387 MGD

DEPARTMENT OF ENVIRONMENTAL QUALITY
Northern Regional Office
Memorandum

To:	Susan Oakes – NRO Water Permits
From:	Dell Cheatham, Environmental Specialist, Remediation Division
Date:	September 18, 2008
Re:	**Indian Acres Campground STP, Groundwater Monitoring Plan (GMP) Data Evaluation – VA0029769**

I reviewed the referenced monitoring report and have the following comments.

There was also no final construction data for the monitoring wells and no detailed site map illustrating the locations of the wells. Although topography would suggest groundwater flow is to the east towards the Po River, it can not accurately be estimated since the wells do not appear to have been surveyed and normalized to a common elevation. The elevation of the lagoon should also be noted in relation to the wells.

The static water level for the first three quarters of 2007 in MW-3, the up gradient well, is reported as "At top." This would indicate artesian conditions and as such would be suggestive of more complex subsurface conditions that would require addition characterization.

While a complete understanding of groundwater flow can not be determined based on the supplied data, the reported groundwater concentrations do not appear to show any indication that the wastewater facilities are impacting the shallow groundwater.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Northern Virginia Regional Office
Memorandum

To: Cynthia Sale, Environmental Manager, Remediation
From: Susan Oakes – NRO Water Permits
Date: September 17, 2008

Indian Acres Campground STP, Groundwater Monitoring Plan (GMP) Data Evaluation – VA0029769

Background: The facility submitted a groundwater monitoring plan during the 2000-2005 permit cycle. The plan was to demonstrate that the integrity of the lagoon berm and liner are sound and to determine: 1) if the lagoon was allowing entry of pollutants into the groundwater; and 2) if groundwater monitoring and subsequent installation of a lagoon liner is necessary. The plan was approved; however, was never implemented.

With the reissuance of the permit in 2005, the permit required the facility to install the groundwater monitoring wells, conduct quarterly sampling for two years and submit a final report to DEQ for review and evaluation.

Permitting staff would like to request that remediation review and comment on the groundwater monitoring report received. Staff has included a copy of the GMP along with a copy of the report. Should you require additional documentation, please let me know.

Po River Water and Sewer Company

(Indian Acres Campground STP VA0029769)

8-14-2008

Received data entered in ECDS 8/19/08

Wilamena Harback
VADEP Northern VA Regional Office
13901 Crown Court
Woodbridge, VA 22193

Dear Ms. Harback

We apologize for the delay of this information. Summer being what it is with people on vacation our timing was a bit slowed. We have hopefully placed this information in such a format that is readable and understandable. Please contact me (919) 960-5739 or my engineer Rebecca Toliver (540) 423-9707 if you have any questions.

Data Evaluation

pH

The reported pH's for the wells have little variability. All reported results are between 6.1 and 6.3. The average result is 6.2 for all three wells. The standard is 5.5 – 8.5.

Conductivity

There is no established groundwater standard for conductivity.

Based on the results available to date, the upgradient well (normally distributed data set) has a lower conductivity than the downgradient wells. Based on the MW-3 data an upper tolerance limit has been determined to be 123. Most of the reported results for the two downgradient wells are greater. Conductivity is a measure of a water's ability to conduct an electric current. Conductivity increases with increasing amount and mobility of ions. Conductivity is an indirect measure of the presence of dissolved solids. The monitoring program also includes TDS monitoring. The conductivity may indicate a presence of more ions in the downgradient wells and the direct measurements (TDS, nitrate & chlorides) will be evaluated to determine significance.

Total Dissolved Solids

The available data sets include a wide range of results. The upgradient well (MW-3) results are normally distributed. The reported results have a mean of 188 and a standard deviation of 135. The data ranges from 20 to 432. An upper tolerance interval limit (95% confidence with 99% coverage) is 776. Based on the interval for the background data, there is no significant, routine difference noted between upgradient and downgradient results. There is one reported result for MW-1 which is considerably different from the remainder of the data set. This was the initial reported result of 4132. Subsequent results for MW-1 ranged from 80 to 452. The initial MW-1 result is a suspected outlier. Data for MW-2

ranged from 64 to 564. The results for all wells include results which are above the groundwater criteria of 250 ppm. Groundwater criteria constituents are naturally occurring and as noted, the data do not indicate a significant difference between the upgradient and downgradient results.

Nitrate-N

The data sets for Nitrate-N (all three wells)are not normally distributed. There is a high number of "<" or BDL results in all three data sets. The results for all of the wells are consistently well below the 5 mg/l numeric groundwater standard.

Chlorides

The upgradient data set is not normally distributed. This initial evaluation is limited to a direct, numeric comparison to the groundwater criteria. A comparison of the results for all three wells to the criteria of 25 mg/l indicates all reported results are numerically below this groundwater criteria. Results for the upgradient, MW-3 range from 2 to 3.5. Results for MW-1 range from 7 to 13.5 and results for MW-2 range from 8 to 14.

Total Organic Carbon

The data set is missing a 2006 results for TOC. A lab change was initiated to obtain the required monitoring. Data is available for three sampling (1 in 2007 and 2 in 2008) events and all but one result is reported as BDL. A result of 1.1 was reported for MW-1 in June, 2008. All of the results are below the TOC groundwater criteria of 10 ppm.

Fecal Coliform

The data sets are not normally distributed due to the high number of "<" reports. It is noted that there was one high (1600)result reported for MW-1. The next result was <2. There is no noted consistent presence of fecal coliform reported in any of the wells. Replacing the reported "<" results with a value of 1 allows a geometric mean to be calculated. The geometric means determined are: MW-1 – 4.66; MW-2 – 1.39 and MW-3 – 1.68. The data sets are dominated by "<" results which appears to indicate that the wastewater lagoon is not having a significant impact. It is assumed that if there were impact the results in the downgradient wells would consistently be a detected high presence.

Ammonia-N

Ammonia-N was analyzed during the first sampling event (2006) and twice during 2007 and twice during 2008. The QL for ammonia-N is 0.1 ppm. The available data is not normal. To determine if the reported results are significantly different from the QL (since the standard is lower than the QL) a confidence limit was determined for each data set. Each of the confidence intervals includes the QL thus it may be assumed that the reported results are not significantly different than the QL. The "<" results were evaluated using the QL. As a second evaluation the half detection (or 0.5) was used and the confidence intervals again contain the QL. The reported results for all of the wells include values <QL and very close to QL.

Based on the data results to date, there is no specific indication that the wastewater facilities are impacting the shallow groundwater in it's immediate vicinity. The upgradient and downgradient results do not indicate an overall significant difference in the monitored parameters. The upgradient well is lower in conductivity; however, a review of the monitored constituents which are more specific to "wastewater" do not indicate the detected presence of a concern. Constituents have been evaluated through comparison to groundwater standards and criteria where appropriate. As noted for ammonia-N the QL is greater than the standard so a confidence interval was constructed and comparison made to QL.

It is noted that the downgradient wells are located down from the lagoon between the facility and the river. The area between the facility and the river was limited and the wells were installed in locations approved by the Department. The upgradient well is located near the entrance to the facility, it is between the road and the lagoon.

Respectfully Submitted,

Matthew Raynor
Utility Director

INDIAN ACRES - GROUNDWATER DATA SUMMARY OF RESULTS

Constituent: Static Level (Depth to Water from Top of Casing)

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1			6'	8'	6.92'	8'	8.17'	8.33'
Downgradient MW-2			7'	9'	7.92'	8.75'	8.17'	8.42'
Upgradient MW-3			At top	At top	At top	0.4"	9"	2.5"

Constituent: pH

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	6.2		6.3	6.3	6.1	6.1	6.1	6.1
Downgradient MW-2	6.2		6.2	6.2	6.2	6.1	6.1	6.2
Upgradient MW-3	6.1		6.2	6.2	6.1	6.1	6.2	6.2

Constituent: Conductivity

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	193	204	211	187	185	207	225	94
Downgradient MW-2	169	142	131	136	133	161	162	85
Upgradient MW-3	69.4	70.4	61.9	66.9	62.3	86	82	45

Constituent: TDS

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	4132		452	224	136	80	200	220
Downgradient MW-2	240		436	236	564	64	148	252
Upgradient MW-3	240		432	136	84	20	152	252

Constituent: Ammonia-N

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	0.308 / 0.18				<0.1	0.1	<0.1	<0.1
Downgradient MW-2	0.214/ 0.09				<0.1	0.2	0.12	0.1
Upgradient MW-3	0.293/ 0.08				<0.1	0.1	<0.1	0.1

Constituent: Nitrate-N

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	0.385	0.251	0.111	<.10	<.10	BDL	BDL	BDL
Downgradient MW-2	0.515	0.61	<.10	0.108	0.117	BDL	BDL	BDL
Upgradient MW-3	0.109	<.10	<.10	0.1	<.1	BDL	BDL	BDL

Constituent: Chlorides

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	13.5	11	13	9.5	10	7	12	9
Downgradient MW-2	12	9.5	14	11.5	11	8	10	10
Upgradient MW-3	3.5	3	3	2.5	3.5	2	3	3

Constituent: Fecal Coliform

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1	<2	2	<2	1600	<2	70	<2	<2
Downgradient MW-2	<2	<2	<2	7	<2	2	<2	<2
Upgradient MW-3	<2	<2	<2	4	<2	2	<2	8

Constituent: TOC

Location:	Date: 7/10/2006	10/31/2006	3/30/2007	6/29/2007	9/27/2007	12/26/2007	3/20/2008	7/8/2008
Downgradient MW-1						BDL	BDL	1.1
Downgradient MW-2						BDL	BDL	BDL
Upgradient MW-3						BDL	BDL	BDL

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated wastewater into a water body in Spotsylvania County, Virginia.

PUBLIC COMMENT PERIOD: January 8, 2011 to 5:00 p.m. on February 7, 2011

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Wastewater issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Po River Water and Sewer Company, 10006 Hammock Bend, Chapel Hill, NC 27517, VA0029769

NAME AND ADDRESS OF FACILITY: Po River Water and Sewer Company, 6437 Morris Road, Spotsylvania, VA 22553

PROJECT DESCRIPTION: Po River Water and Sewer Company has applied for a reissuance of a permit for the private Po River Water and Sewer Company STP. The applicant proposes to release treated sewage wastewaters from residential areas at a rate of 0.10 million gallons per day into a water body. Sludge from the treatment process will be transported to the Massaponax WWTP for disposal. The facility proposes to release the treated sewage in the Po River in Spotsylvania County in the York River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, BOD, Total Suspended Solids, Dissolved Oxygen, Chlorine, Ammonia and *E. coli*.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the documents at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.
Name: Susan Mackert
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3853 E-mail: susan.mackert@deq.virginia.gov Fax: (703) 583-3821

Revised 2/2003

State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Po River Water and Sewer Company
NPDES Permit Number:	VA0029769
Permit Writer Name:	Susan Mackert
Date:	October 8, 2010

Major [ ] **Minor** [X] **Industrial** [ ] **Municipal** [X]

I.A. Draft Permit Package Submittal Includes:	**Yes**	**No**	**N/A**
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?	X		
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?			X

I.B. Permit/Facility Characteristics	**Yes**	**No**	**N/A**
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet **or** permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet **or** permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?			X
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?			X
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?		X	

I.B. Permit/Facility Characteristics – cont.	**Yes**	**No**	**N/A**
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Checklist – for POTWs

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			X

II.C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for ALL of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a "reasonable potential" evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?	X		
d. Does the fact sheet indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?			X
e. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?	X		

II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			X
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?	X		
4. Does the permit require testing for Whole Effluent Toxicity?		X	

II.F. Special Conditions	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?		X	
2. Does the permit include appropriate storm water program requirements?		X	
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?			X
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?		X	
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?		X	
a. Does the permit require implementation of the "Nine Minimum Controls"?			X
b. Does the permit require development and implementation of a "Long Term Control Plan"?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?		X	

II.G. Standard Conditions	Yes	No	N/A
1. Does the **permit** contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

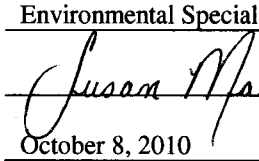
List of Standard Conditions – 40 CFR 122.41

Duty to comply	Property rights	Reporting Requirements
Duty to reapply	Duty to provide information	Planned change
Need to halt or reduce activity not a defense	Inspections and entry	Anticipated noncompliance
	Monitoring and records	Transfers
Duty to mitigate	Signatory requirement	Monitoring reports
Proper O & M	Bypass	Compliance schedules
Permit actions	Upset	24-Hour reporting
		Other non-compliance

2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Susan Mackert
Title	Environmental Specialist II Senior
Signature	
Date	October 8, 2010